(FILE 'HOME' ENTERED AT 10:23:53 ON 29 APR 2002)

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	FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 10:24:21 ON 29 APR 2002
L1	892 S BRCA1 AND (PCR OR POLYMERASE (W) CHAIN)
L2	30 S L1 AND (EXON (2A) (13 OR 22))
L3	14 DUP REM L2 (16 DUPLICATES REMOVED)

L4 ANSWER 1 OF 5 MEDLINE DUPLICATE 1

- AN 97029994 MEDLINE
- DN 97029994 PubMed ID: 8875917
- TI Clinical and pathological features of ovarian cancer in women with germ-line mutations of BRCA1.
- CM Comment in: N Engl J Med. 1996 Nov 7;336(19):1455-6
 Comment in: N Engl J Med. 1997 Apr 24;336(17):1254-5; discussion 1256-7
 Comment in: N Engl J Med. 1997 Apr 24;336(17):1254; discussion 1256-7
 Comment in: N Engl J Med. 1997 Apr 24;336(17):1255-6; discussion 1256-7
 Comment in: N Engl J Med. 1997 Apr 24;336(17):1255; discussion 1256-7
 Comment in: N Engl J Med. 1997 Apr 24;336(17):1256; discussion 1256-7
- AU Rubin S C; Benjamin I; Behbakht K; Takahashi H; Morgan M A; LiVolsi V A; Berchuck A; Muto M G; Garber J E; Weber B L; Lynch H T; Boyd J
- CS Department of Obstetrics and Gynecology, University of Pennsylvania Medical Center, Philadelphia, PA 19104, USA.
- SO NEW ENGLAND JOURNAL OF MEDICINE, (1996 Nov 7) 335 (19) 1413-6. Journal code: NOW; 0255562. ISSN: 0028-4793.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Abridged Index Medicus Journals; Priority Journals
- EM 199611
- ED Entered STN: 19961219 Last Updated on STN: 19980206 Entered Medline: 19961114
- BACKGROUND: We tested the hypothesis that ovarian cancers associated with germ-line mutations of BRCA1 have distinct clinical and pathological features as compared with sporadic ovarian cancers. METHODS: We reviewed clinical and pathological data on patients with primary epithelial ovarian cancer found to have germ-line mutations of BRCA1. Survival among patients with advanced-stage cancer and such mutations was compared with that in control patients matched stage, grade, and histologic subtype of the tumors. A combination of single-strand conformation and sequencing analyses was used to examine the 22 coding exons and intronic splice-donor and splice-acceptor regions of BRCA1 for mutations in pathological specimens. Alternatively, some patients were known to be obligate carriers of the mutant BRCA1 gene because of their parental relationships with documented mutant-gene carriers. RESULTS: We identified 53 patients with germ-line mutations of BRCA1. The average age at diagnosis was 48 years (range, 28 to 78). Histologic examination in 43 of the 53 patients showed serous adenocarcinoma. Thirty-seven tumors were of grade 3, 11 were of grade 2, 2 were of grade 1, and 3 were of low malignant potential. In 38 patients, the tumors were of stage III; 9 patients (including those with tumors of low malignant potential) had stage I disease, 5 had stage IV, and 1 had stage II. As of June 1996, with a median follow-up among survivors of 71 months from diagnosis, 20 patients had died of ovarian cancer, 27 had no evidence of the disease, 4 were alive with the disease, and 2 had died of other diseases. Actuarial median survival for the 43 patients with and advanced-stage disease was 77 months, as compared with 29 months for the matched controls (P<0.001). CONCLUSIONS: As compared with sporadic ovarian cancers, cancers associated with BRCA1 mutation appear to have a significantly more favorable clinical course.
- L4 ANSWER 2 OF 5 MEDLINE
- AN 96225458 MEDLINE
- DN 96225458 PubMed ID: 8640237
- TI Mutation analysis in the BRCA2 gene in primary breast cancers.
- AU Miki Y; Katagiri T; Kasumi F; Yoshimoto T; Nakamura Y
- CS Department of Human Genome Analysis, Cancer Chemotherapy Center, Tokyo,

DUPLICATE 2

Japan.

- SO NATURE GENETICS, (1996 Jun) 13 (2) 245-7. Journal code: BRO; 9216904. ISSN: 1061-4036.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- OS GENBANK-D83989
- EM 199607
- ED Entered STN: 19960726 Last Updated on STN: 19990129 Entered Medline: 19960716
- Breast cancer, one of the most common and deleterious of all diseases AB affecting women, occurs in hereditary and sporadic forms. Hereditary breast cancers are genetically heterogeneous; susceptibility is variously attributable to germline mutations in the BRCA1 (ref. 1), BRCA2 (ref. 2), TP53 (ref. 3) or ataxia telangiectasia (ATM) genes, each of which is considered to be a tumour suppressor. Recently a number of germline mutations in the BRCA2 gene have been identified in families prone to breast cancer. We screened 100 primary breast cancers from Japanese patients for BRCA2 mutations, using PCR-SSCP. We found two germline mutations and one somatic mutation in our patient group. One of the germline mutations was an insertion of an Alu element into exon 22, which resulted in alternative splicing that skipped exon 22. The presence of a 64-bp polyadenylate tract and evidence for an 8-bp target-site duplication of the inserted DNA implied that the retrotransposal insertion of a transcriptionally active Alu element caused this event. Our results indicate that somatic BRCA2 mutations, like somatic mutations in the BRCA1 gene, are very rare in primary breast cancers.
- L4 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
- AN 1997:146761 CAPLUS
- DN 126:181894
- TI A protein truncation test for BRCA1
- AU Garvin, Alex M.; Mueller, Hj.; Scott, Rodney J.
- CS Dep. Genetics, Children's Hosp., Basel, Switz.
- SO Hered. Cancer, Int. Res. Conf. Fam. Cancer, 2nd (1996), Meeting Date 1995, 6-10. Editor(s): Mueller, Hansjakob; Scott, Rodney J.; Weber, Walter. Publisher: Karger, Basel, Switz. CODEN: 64BIAV
- DT Conference
- LA English
- The recently isolated BRCA1 gene [1] spans 100 kb of chromosome AB 17q21 and contains 1,863 codons dispersed on 22 exons. Screening for mutations in BRCA1 by single-strand conformation polymorphism (SSCP) or sequencing requires as many as 50 PCR reactions followed by anal. of the 50 amplified products [2]. Such a work-intensive endeavor makes large-scale screening of BRCA1 problematic. One way of reducing the amt. of work required to screen coding sequence is to perform a protein truncation test (PTT) [3], in which the coding sequence is PCR amplified with an RNA polymerase binding site attached to its 5' The PCR product is then used as template in a coupled in vitro transcription/translation reaction and the radiolabeled protein product is analyzed by sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE). PTT has been successful in screening for mutations in the APC tumor suppressor gene [4]. Since 86% of all mutations found in BRCA1 result in a truncated protein product [5], BRCA1 is an esp. attractive candidate for screening by PTT. Below the authors will describe a PTT capable of screening the entire coding region of BRCA1 using 7 PCR per screen. The authors also show an example of a mutation in BRCA1 detected using this assay.

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@PJL JOB NAME = "MSJOB 23"

@PJL USTATUS JOB = ON

@PJL USTATUS PAGE = OFF

@PJL USTATUS DEVICE = ON

@PJL USTATUS TIMED = 30

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detected in any of the tumors, constitutional mutations were identified in four cases: two frameshifts, one nonsense mutation and one intronic base substitution 32 bp downstream of <code>exon 22</code>; RT
PCR experiments revealed that the single-base substitution in the intron seemed to increase the transcript lacking <code>exon 22</code>. All four cases were judged to involve truncation of the gene product. The evidence reported here supports a rather limited role of <code>BRCA1</code> in ovarian carcinogenesis in the Japanese population.